Navy ILE Presentation Standards

List of Effective Pages

Section	Page(s)	Affected paragraph(s)

Change Record

Paragraph	Description of Change	Date	Authorized By

Acronyms, Abbreviations, Definitions

See the ILE website for a list of acronyms, abbreviations and definitions.

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1.0 Overview

This document encompasses the Navy Integrated Learning Environment (ILE) presentation standards for interactive media instruction (IMI), also known as self-paced instruction, interactive courseware (ICW), computer-based training (CBT) or web-based training (WBT). The presentation layer is developed (by contractors or a government team) for delivery of content based on project requirements.

As a result there are many different presentations currently used. In some cases this is a minor inconvenience, in other cases it causes distraction to learners and limits the reusability of content. To illustrate what is in current use, screen captures of existing presentation layers are included in this document to assist in illustrating the presentation standards.

In order for Navy to capitalize on their content development investment, the following presentation standards will be followed. This document contains specifications for visual presentation including window delivery size, page elements, color conventions, navigation, and web accessibility.

Section 2.0 contains presentation standards when IMI is being developed within OutStart Evolution.

Section 3.0 provides web accessibility information.

Section 4.0 contains general visual design considerations.

2.0 Presentation Guidelines for Development within OutStart

2.1 Learning Object Page

Function: Course content is displayed in a standard window. There are two types of viewers available for displaying course content:

- Learning Object (LO) Delivery Window
- Computer-Based Training (CBT) Viewer

LO Delivery Window

The LO Delivery Window allows for more flexible navigation and choice by learners. It is divided into three frames:

- **Header Frame** displays the course and lesson titles. It also contains the navigation buttons and tools.
- **Topic Frame** contains links to each page within the lesson on Sharable Content Objects (SCOs).
- **Content Frame** displays the text and media that comprise the page being viewed. The page can be broken down further and navigated by using the tabs across the top of the Content Frame.

Figure 1 LO Delivery Window

CBT Viewer

The CBT viewer requires a screen by screen progression through content. It is divided into:

- **Header Frame** displays the course and lesson titles and page counter.
- **Content Frame** displays the text and media that comprise the page being viewed.
- **Navigation Frame** contains the viewer navigation buttons.

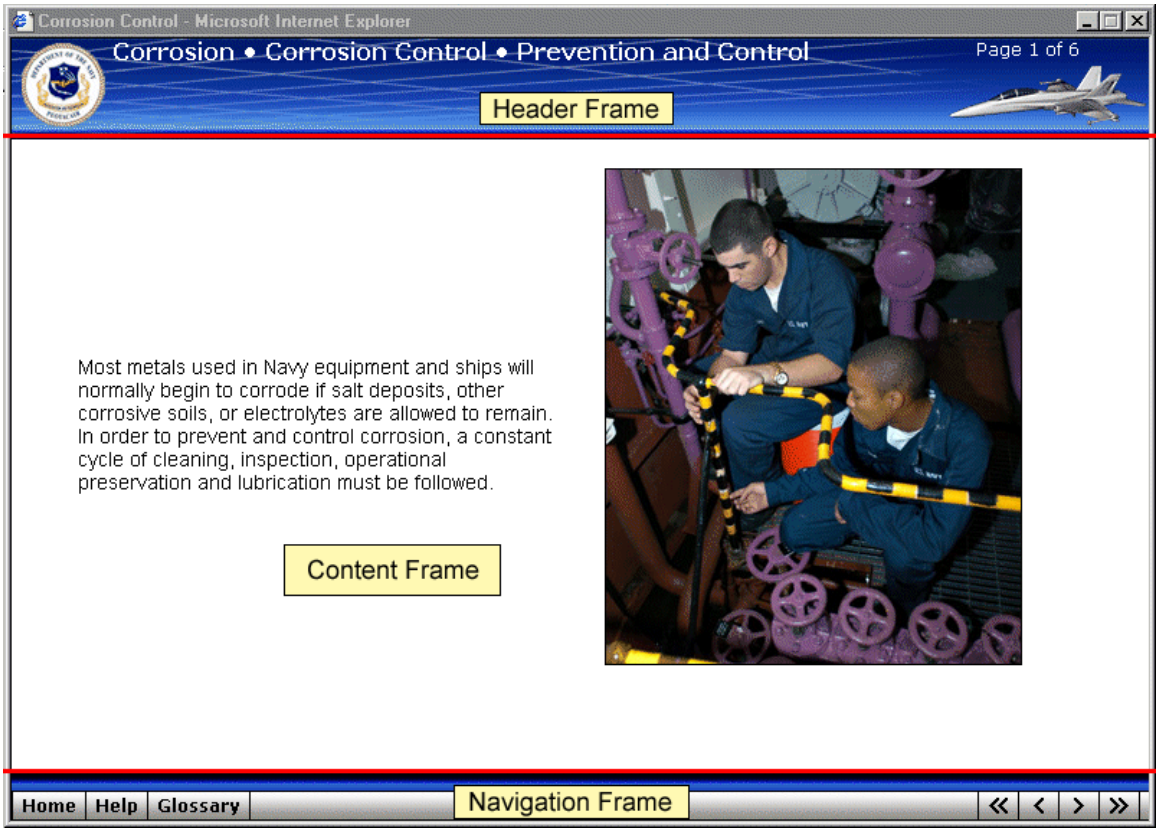

Figure 2 CBT Viewer

2.2 Learning Object Delivery Window

2.2.1 LO Delivery Window

Function: Provides students with a starting point to enter a lesson.

- Welcomes students to the lesson
- Provides the purpose of the lesson
- Provides the content of the lesson
- Provides a summary of what is included in the lesson

Conventions:

- Screen resolution 1024 x 768
- Establish header logo, 160 pixels by 103 pixels
- Establish LO header frame, 611 pixels by 103 pixels
- Establish LO left frame background, 160 pixels by 495 pixels
- Establish Image Used for LO topic list Indicator 20 pixels by 15 pixels
- Establish Image Used for Topic Count Icon 12 pixels by 12 pixels
- Establish content area beneath the header and to the right of topic frame, 650 by 495 pixels (approximately)

Figure 3 LO Window

2.2.2 Header Frame

Function: Identifies Course, School or Learning Center and lesson

Conventions:

- Size: 611 pixels by 103 pixels
- Graphical
- Course, School or Learning Center logo graphic at left, 160 pixels by 103 pixels
- Learning Center-specific logo at right
- Background color: Background color should match Learning Center but also be transparent to view. Avoid black, dark blue or similar colors
- Text font: Arial, Verdana
- Course Title font size: 16 point
    - Example: font-size: 16 pt; font-family: Verdana; font-weight: bold; color:#FFFFFF; position:absolute; top:23 pixels; left:10 pixels
- LO Title font size: 11 point
    - Example: font-size: 11pt; font-family: Verdana; font-weight: bold; color:#FFFFFF; position:absolute; top:50 pixels; left:10 pixels
- LO Page Topic Count Style: 15 point, Bold
    - Example: font-size:15 pixels; font-weight:bold; font-family:verdana; top:10 pixels; left:525 pixels; color:#000000
- Text color: #FFFFFF
- Text features Course title and LO title in title case. Include number of screens and reference to where the student is in the sequence (i.e., 1 of 8)

Example:

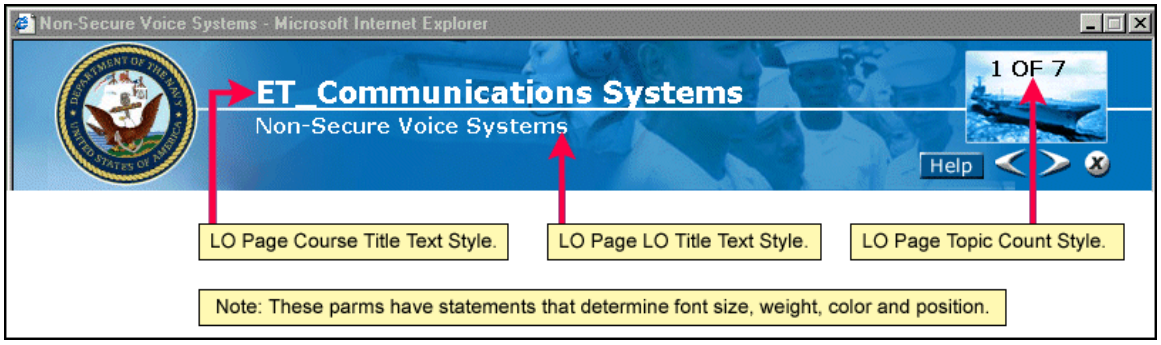

Figure 4 Header Frame

2.2.3 Topic Frame

The topic frame provides navigation by topic throughout a lesson. Each topic includes checkmark in the right column to indicate completion. The arrow appearing to the left of the topic indicates navigation. The following table shows the items and their function for this frame.

Item/Area	Function	Properties
Topic Frame Size	Provides the frame for the topic list area	160 by 495 pixels
Background color	Background color should match the LO header	NA
Topic Count Icon	Image used to indicate topics that have been viewed	12 by 12 pixels
LO Topic List Indicator	Image that identifies current topic in view	20 by 15 pixels
Text Font	Font style for Topic Titles	12 pixels; Bold; Arial
Text Color	Color of topic titles, there is active and inactive.	Colors to match theme

Example:

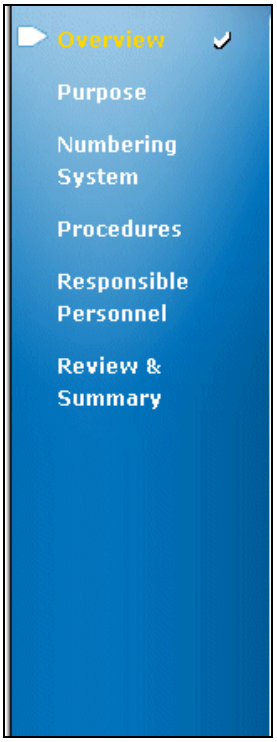

Figure 5 Topic Frame

2.2.4 Navigation Tabs

Function: Provides access to lesson-related functional areas

Conventions:

- Located directly below any buttons within content area
- Background color of highlighted (selected) tab: dependent upon overall theme
- Background color of non-highlighted tab: dependent upon overall theme
- Text font color: dependent upon overall theme

Examples:

Figure 6 Navigation Tabs

The following image displays the various items that can be modified in a theme.

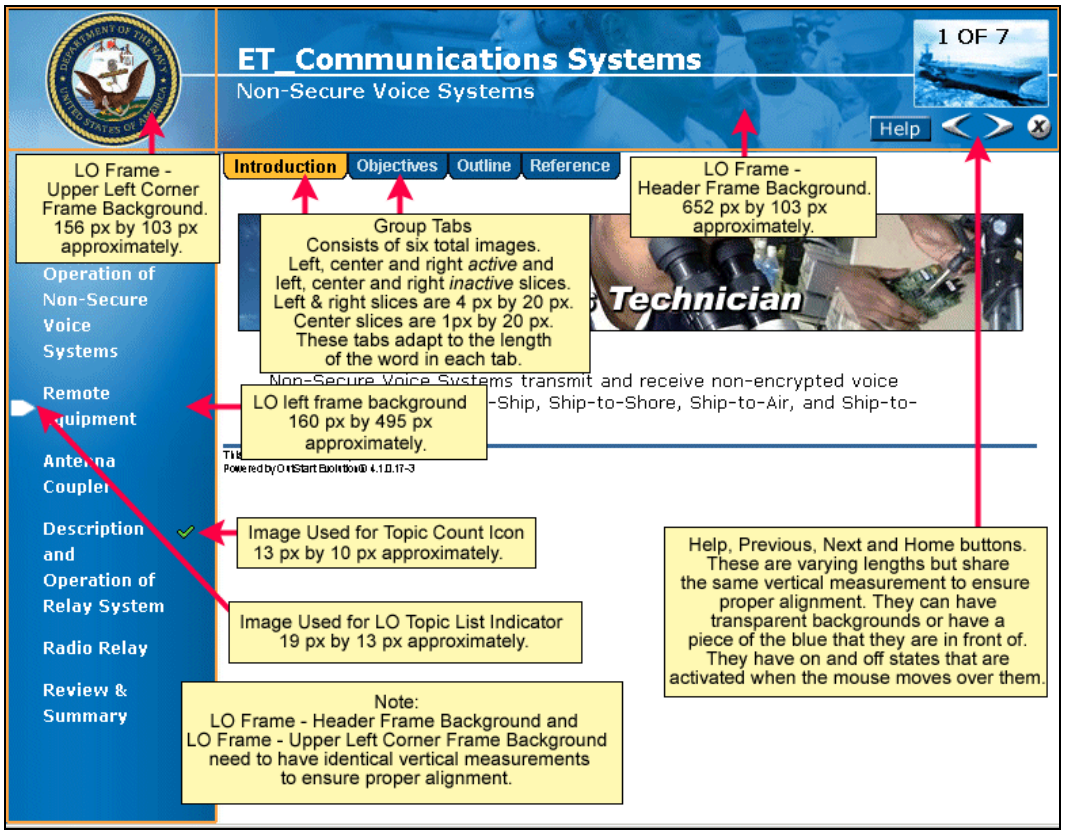

Figure 7 Navigation Types

2.2.5 Content Area

Function: Provides space for lesson content

Conventions:

- Background color: none
- Element font: Arial, 13 pixels
- Text Title Style: Arial, 20 pixels
- Text color: Black
- Left justified
- All titles, subtitles, groups, and headings are displayed in title case
- All notes, tips, warnings, and cautions standout in boxes
- Section Heading: Browser default
- Lists (bulleted, numbered, non-bulleted): Use OutStart defaults, not HTML
- Graphic captions: Centered

Example:

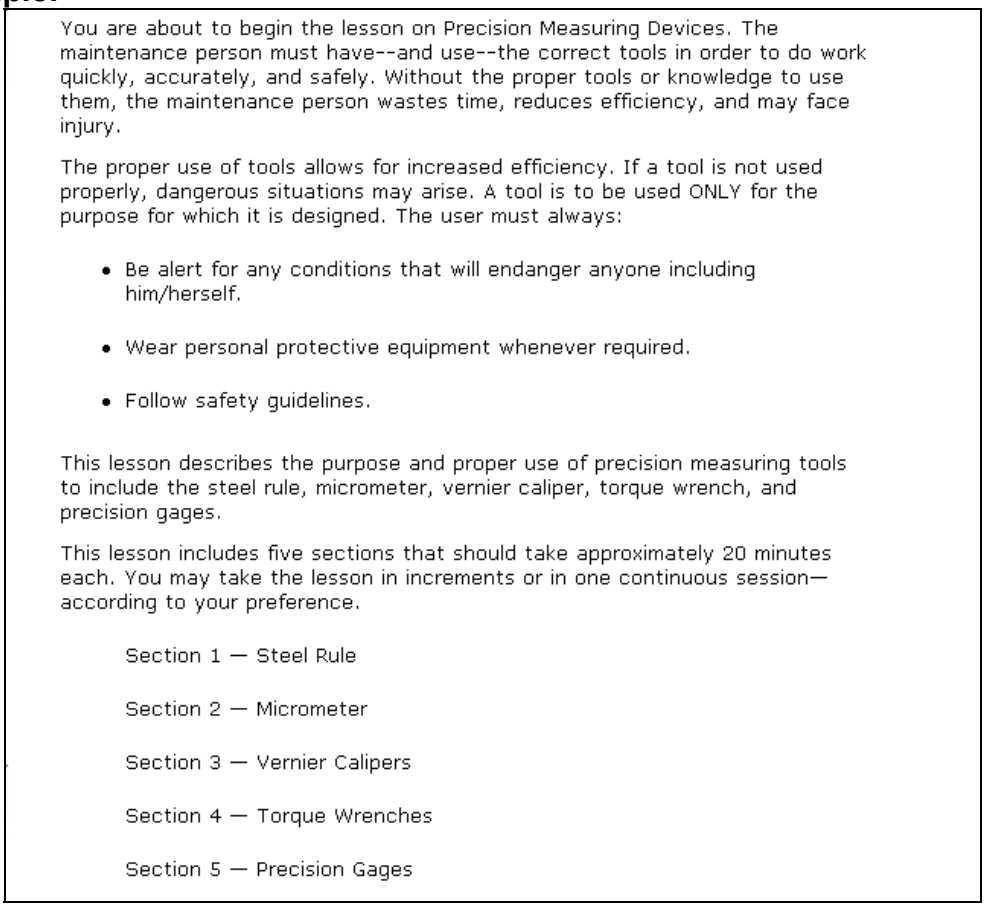

Figure 8 Content Area

2.3 CBT Viewer

Function: Provides students with a starting point to enter a lesson

- Welcomes students to the lesson
- Provides the purpose of the lesson
- Provides the content of the lesson
- Provides a summary of what is included in the lesson

Conventions:

- Screen resolution 1024 x 768
- Establish header logo
- Establish LO header frame, 611 pixels by 103 pixels
- Establish content area beneath the header 800 by 450 pixels approximately
- Establish navigation bar at the bottom of page

The following image displays the various items that can be modified in a theme.

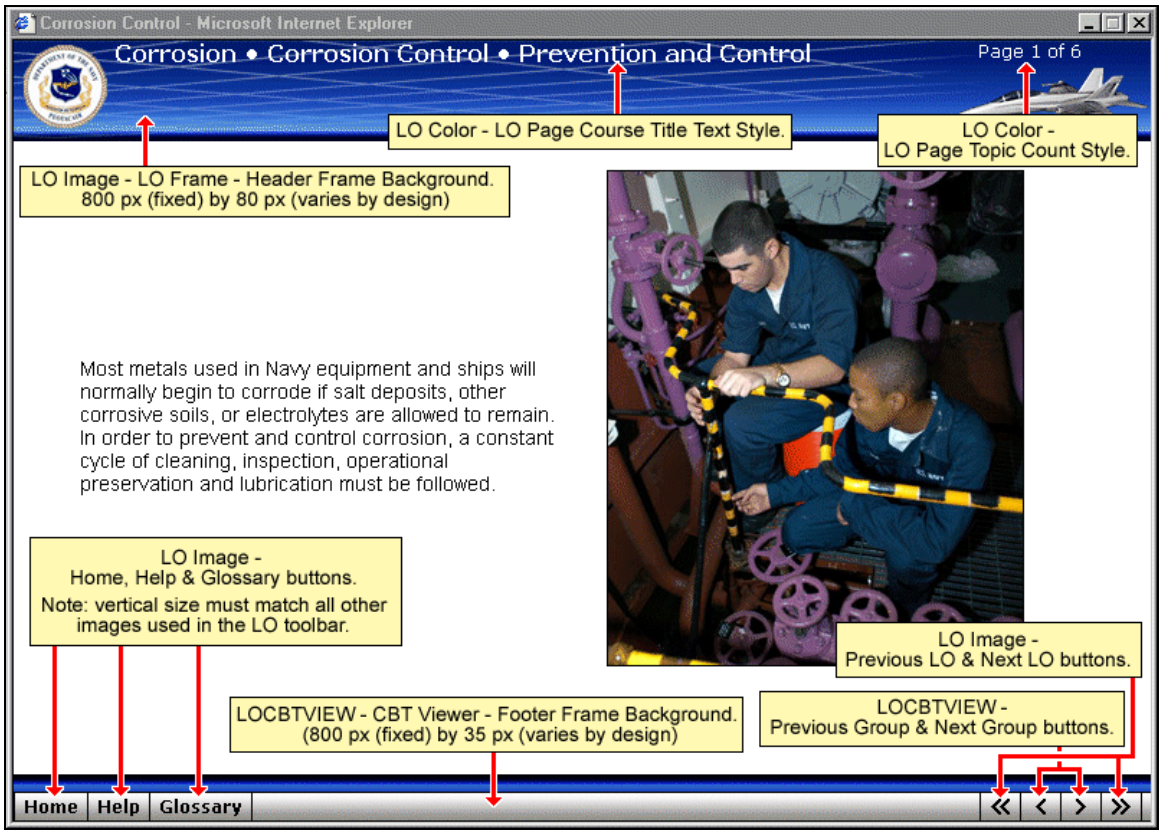

Figure 9 CBT Viewer

2.4 Navigation Buttons

Function: Facilitates navigation through and use of the online lesson. Buttons are entirely configurable. Based on the organizations themes, buttons can be in the form of graphical icons, or have text written. The organization can also decide how many of the buttons will be included in the theme. For example, a Glossary button may not be necessary for the courses displayed in this theme, so that button can be "turned off" from view.

Icon	Description
Menu	Displays the course menu.
Index	Shows the course hierarchy and allows navigation to a certain page within the course.
Glossary	Opens the glossary.
Print	Prints the current page.
Page Back	Branches to the previous frame in the current lesson.
Page Forward	Branches to the next frame in the current lesson.
Exit	Closes the IMI application.

Table 1 Navigation Icon Description

Conventions:

- Navigation should be consistent in style and function
- Located directly below header frame in LO Delivery Window or at the bottom of the CBT viewer
- Size: dependent upon style of buttons
- Background color: background should match overall theme
- Text font size: dependent upon button style
- Text font color: Colors should match overall theme

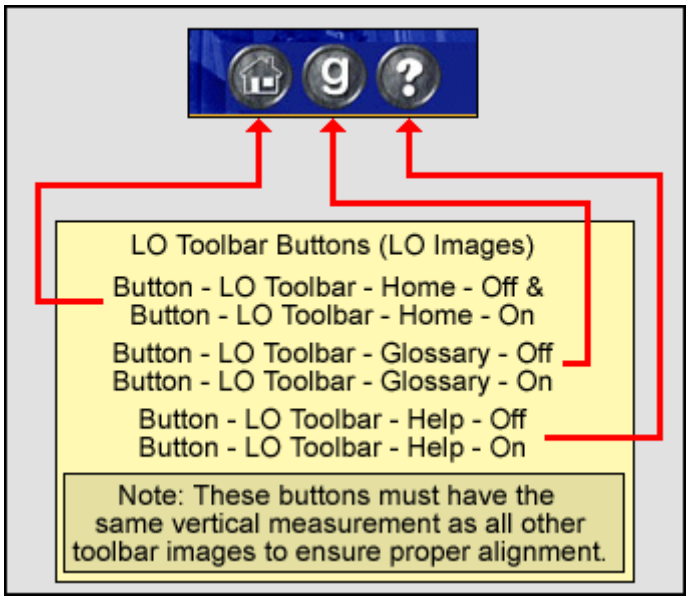

Figure 10 LO Toolbar Button Functionality

Example:

Figure 11 Toolbar Buttons

- Slideshow: Buttons for slideshow should match the theme

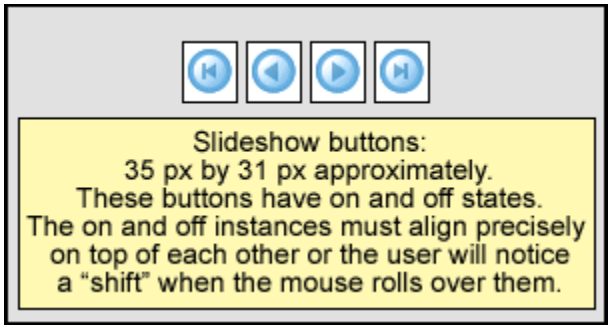

Figure 12 Slideshow Buttons

2.5 Glossary

Function: Provides a list of terms and definitions relevant to the lesson

Conventions:

- Accessed as a pop up window
- Size: 1024 x 768
- Background color of highlighted (selected) tab: dependent on theme
- Background color of non-highlighted tab: dependent on theme
- Text font size: same as content area of main window
- Text font color: Black text on white background
- Text features: Acronyms and glossary terms
- Page features: Provide anchor links to each lettered section in topic frame

Example:

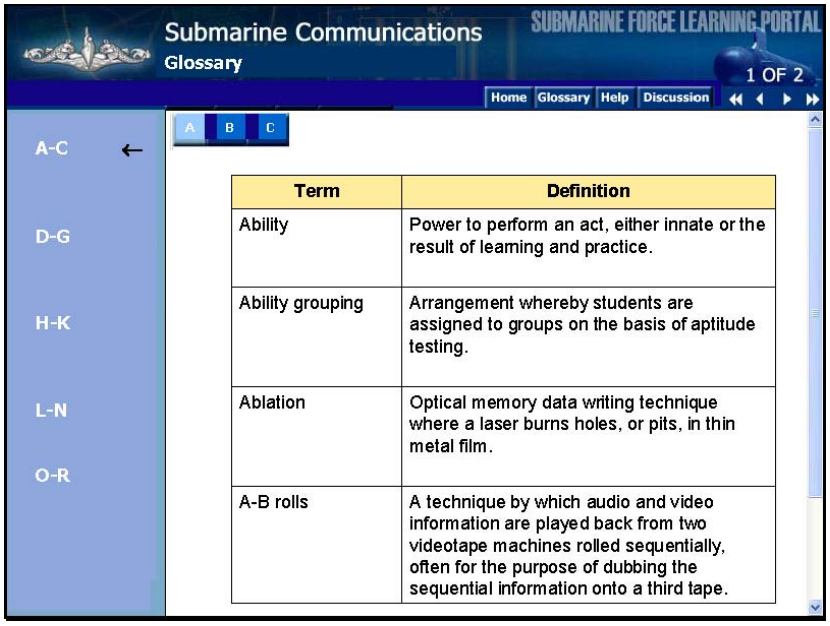

Figure 13 Glossary

2.6 Graphics

Function: Provides visualization of content to learner

Conventions:

- Media Element Type: All still images for IMI may be saved in JPEG, GIF, PNG, or SVG formats, among others, using maximum quality settings for IMI delivery and download
- Caption: All captions should be centered below the images. Use title case for caption labels
- Alt text: Alternate text should be provided for images to identify the images
- Security Classification: All images should be identified with the security classification

2.7 Audio Files

Function: To clarify appropriate topics through recorded media

Conventions:

- Audio files should be saved as MP3 files and displayed in a template that provides the learner with guidance on use (e.g., requires headphones, length of audio, button to start)

Example:

Figure 14 Audio Files

2.8 Navy Color Conventions

Element	RGB	HEX #	Color
Air Temp			
Cold	0, 0 , 255	#0000FF	
Cool	0, 140, 255	#008CFF	
Ambient	103, 201, 255	#67C9FF	
Warm	255, 235, 0	#FFEB00	
Hot	255, 0, 0	#FF0000	
ECS	255, 0, 255	#FF00FF	
Compress Air			
Compress Nitrogen	0, 0, 255	#0000FF	
Oxygen	0, 255, 0	#00FF00	
Electric			
28 VDC	255, 0, 0	#FF0000	
115 VAC	3 red, 3 white		
Energized Relay	255, 0, 0	#FF0000	
De-energized	255, 255, 255	#FFFFFF	
Lube Oil			
Cool	182, 124, 28	#B67C1C	
Hot	255, 89, 0	#FF5900	
Fuel Flow			
Fuel in Lines	110, 25, 125	#6E197D	
E2 Fuel Flow Gradient	110, 25, 125 126, 52, 145 142, 79, 167 158, 106, 188 174, 133, 209	#6E197D #7E3491 #8E4FA7 #9E6ABC #AE85D1	
Vent	0, 0, 255	#0000FF	

Figure 15 Color Conventions

3.0 Web Accessibility

Section 508 requires that Federal agencies' electronic and information technology is accessible to people with disabilities. The following compliance guidelines for web-based delivery of content should be addressed in the design of the interface, navigation, and display of content. An example of how to comply with each guideline is also provided. Further guidance is provided at www.section508.gov.

3.1 Ten Quick Tips for Web Accessibility

As stated by W3C (MIT, INRIA, Keio) 2001/01.

1. **Images & animations:** Use the **alt** attribute to describe the function of each visual.
2. **Image maps:** Use the **c**lient-side map and text for hotspots.
3. **Multimedia:** Provide captioning and transcripts of audio, and descriptions of video.
4. **Hypertext links:** Use text that makes sense when read out of context. For example, avoid "click here."
5. **Page organization:** Use headings, lists, and consistent structure. Use CSS for layout and style where possible.
6. **Graphs & charts:** Summarize or use the longdesc attribute.
7. **Scripts, applets, & plug-ins:** Provide alternative content in case active features are inaccessible or unsupported.
8. **Frames:** Use the **noframes** element and meaningful titles.
9. **Tables:** Make line-by-line reading sensible. Summarize.
10. **Check your work:** Validate. Use tools, checklist, and guidelines at http://www.w3.org/TR/WCAG .

4.0 Visual Design Considerations

The interface can provide quality communication between the computer and learner by providing a logical sequence for learning. Graphics can help enhance instruction and they can help to cue students to specific information in the lesson.

The design of the interfaces should be clear, consistent and attractive. The learner, dealing with new information, needs to devote attention to the instruction and not the medium in which instruction is displayed. The layout of text and images can help to arrange the parts of IMI into a logical sequence for learning. Divide large units of information into smaller units to improve visual clarity and improve retention of information. Information should be presented in a consistent format. Text should be placed in a similar position; a picture that is available throughout IMI should be placed in the same position; the same type should be used; and images should be similar in style. An imaginary line directly above the center of the computer screen marks the optical center. This is where the learner's vision will focus. Concentrating elements at the optical center will keep the design balanced. Large illustrations should be anchored by other elements. Empty space, through contrast, can act as an anchor to balance a large illustration.

In order to elaborate on concepts during instruction, images can be used. An illustration next to text can help the learner remember and retrieve the text through association. Adding an appropriate image next to text will encourage the learner to employ this strategy. For example, in order to enhance instruction in IMI, images can be used to show how something looks. The image should illustrate a description in text clearly. If the intent of an image is to generalize features of a class, then the image should represent this generalization. For instance, text that describes general characteristics of an object should be illustrated visually with an emphasis on the general characteristics. A digitized photograph of the object will not present the identifying characteristics as well as a simple line drawing because irrelevant detail will interfere. Realism in instructional graphics may have a negative impact by overloading the learner with irrelevant information.

In order to draw the learner to important information in IMI, visual cueing strategies can be used. Cueing helps to change the emphasis a learner places on different elements shown. Learners perform best when they are cued to information. Cues should visually represent their function. If the learner is unable to recognize a cue's function, then the information being cued will not be evident, and important instructional information may be overlooked or misinterpreted. For example, an arrow symbolically represents the act of pointing. A question mark represents the act of questioning. A box containing information separates it from the rest of the information on the screen.

Consistency in the design of cues can convey a clear visual message to the

learner. The purpose of cues should be the same throughout an IMI lesson. For example, if on ten screens a box is placed around supplementary information, a change to displaying this information not in a box will confuse the learner. If it is necessary to change a cue's design, then this change should occur only at the beginning of a new section. The change could help to inform the learner that there is a change in content.